Amendments to the Specification

Please replace paragraph [046] with the following rewritten paragraph:

[046] FIG. 6 shows how to use the 3x3 matrices from FIG. 5 to perform multi-primary conversions. Three valued colors are presented to [[the]] 3x3 matrix multiplier 610 and one of the 6 matrices shown in FIG. 5 is chosen based on the triangle number of the input color, calculated using Hue Angle Converter 410 (FIG. 4) as described in a related application regarding hue angle calculations. [[The]] 3x3 matrix multiplier 610 performs the 9 multiplies (and several additions to complete a matrix multiply) and outputs 3 values. These three values are distributed as the 6 output signals by 6 multiplexors. The multiplexors also use the chromaticity triangle number produced by Hue Angle Converter 410 as their input to select different values. The three multiply results are wired to the 6 multiplexors depending upon the rules used to compact the original multi-primary matrices into 3x3 matrices. For example, the rule that the red row is always put in the top row of the 3x3 matrices means that [[the]] red multiplexor 620 always selects the first matrix multiplier result. Thus, [[the]] red multiplexor 620 is somewhat unnecessary, but it is left in as an example. It should be appreciated that the same hardware optimization can be applied to an N primary system where N is typical greater than 3.

Please replace paragraph [047] with the following rewritten paragraph:

[047] FIG. 7 shows the special case for RGBW when W (white) is one of the primaries. ~~Because~~ The W row of coefficients in each matrix of FIG. 7 [[is]] typically contains a row identical to one of the ~~others~~ other rows in the matrix, with the identical rows shown shaded in the matrices on the left side of FIG. 7. [[it]] The W row, therefore, can be removed from each of the original matrices to form the 3x3 matrices. Also in the case of RGBW, only 3 rows remain after removing the W row of coefficients, and these three rows can be kept in their original order. Because of this, the multiplexors for R G and B are ~~can be removed~~ not required in the RGBW implementation, as shown in FIG. 8. Only one multiplexor 820 for W may be desirable to choose the correct value from the other primaries.